

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-20 (Canceled)

21. (Currently Amended) A method for detecting multiuser behavior on an aerial interface in GPRS and EGPRS mobile radio systems, comprising the steps of
acquiring and evaluating during a transmission of subscriber data on an aerial interface, additional information contained in subscriber data by a device on a network side and/or a subscriber side, both in the uplink and the downlink; and
identifying a number of parallel subscribers in used timeslots based on the additional information.

22. (Currently Amended) The method according to claim 21, ~~further comprising wherein the~~
acquiring and evaluating step comprises the steps of
comparing at the beginning of a Temporary Bit Flow (TBF) the number of the used Radio Link Control (RLC) blocks with an actually available and hence usable number of RLC blocks, and the identifying step comprises the step of
identifying ~~[[a]]~~ the number of parallel subscribers in the used timeslots based on the additional information contained in the RLC blocks.

23. (Currently Amended) The method according to claim 21, ~~further comprising wherein the~~
acquiring and evaluating step comprises the step of evaluating parameters Uplink Status Flag (USF) and/or Temporary Flow Identifier (TFI) as additional information.

24. (Currently Amended) The method according to claim 23, ~~further comprising wherein the~~
acquiring and evaluating step further comprises the step of determining for the duration of an uplink TBF, how many USF's are allocated by the network side.

25. (Currently Amended) The method according to claim 23, ~~further comprising wherein the~~
acquiring and evaluating step further comprises the step of determining for the duration of a
downlink TBF, how many USF's are allocated by the network side.

26. (Currently Amended) The method according to claim 23, ~~further comprising wherein the~~
acquiring and evaluating step further comprises the step of identifying the USF's and/or TFI's
and for each TBF and a combination of all TBF's which are part of the transfer.

27. (Currently Amended) The method according to claim 22, ~~further comprising wherein the~~
acquiring and evaluating step further comprises the step of determining, in a static allocation
process, the usage of the timeslots for the RLC blocks by counting the data frames.

28. (Currently Amended) The method according to claim 21, ~~further comprising wherein the~~
acquiring and evaluating step comprises the step of evaluating for the entire lifetime of the
respective uplink TBF and/or downlink TBF, the RLC data as well as the RLC/MAC control
blocks for all TBF's in existence at that time and in all timeslots allocated to the respective TBF,
and determining based on these data if a multiuser operation has occurred at the time of the data
transmission.

29. (Currently Amended) A device for detecting multiuser behavior on the aerial interface in
GPRS and EGPRS mobile radio systems, wherein during a transmission of subscriber data on the
aerial interface, additional information contained in the subscriber data ~~are~~ is acquired and
evaluated by at least one device on the network side and/or the subscriber side, both in the uplink
and the downlink; and a number of parallel subscribers in used timeslots is identified based on
the additional information; and wherein the at least one device for acquiring the additional
information is provided on the network side and/or on the subscriber side in the mobile radio
network, which information is included in the subscriber data transmitted on the aerial interface
in the downlink and uplink.

30. (Previously Presented) The device according to claim 29, wherein the at least one device is provided in the Packet Control Unit PCU (8).

31. (Previously Presented) The device according to claim 29, wherein the at least one device comprises a subscriber-side measurement system, which cooperates with or is integrated in a mobile radio terminal.

32. (Previously Presented) The device according to claim 29, wherein the additional information comprises the parameters USF and/or TFI.